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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,088	03/21/2001	Hongli Willimann	1773	2184

7590

03/31/2003

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EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/744,088

Applicant(s)

WILLIMANN ET AL.

Examiner

Dr. Kelechi C. Egwim

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-50 is/are rejected.
- 7) ☒ Claim(s) 35 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claim 35 is objected to because of the following informalities: In the second line of the claim, the word "to" should be deleted and substituted with "in" in order to improve the claim language. Appropriate correction is required.
2. Claim 41 is objected to because of the following informalities: In the second line of the claim, the word "of" should be substituted with "or". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 30-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 30, from which the balance of the claims depend, recites that "10 to 70 percent by weight of ... monomers having a T<sub>g</sub> above 30°C" are to be contained in the monomer mixture, however this limitation is repugnant to the usual meaning of T<sub>g</sub> since T<sub>g</sub> is a property of a polymer and no a property of any monomer or any mixture of

monomers. Applicant's claimed "at least one nonionic" monomer renders the claims indefinite.

Further, claim 38 recites Tg's as limitations for a monomer.

6. Claim 37 recites the limitation "the process in claim wherein", however it is unclear which claim(s) this claim is referring to or dependent from. There is insufficient antecedent basis for the limitations in the claim.

7. In addition, Claim 50 provides for the use of the latex particles of claim 46, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 50 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 30-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoshino et al. (EP 426391).

In page 2, lines 47-53 and page 4, lines 10-13 and 37-47, Hoshino et al. teach a process for preparing an aqueous dispersion of core-shell polymers, with particle sizes from 0.1 to 5.0  $\mu\text{m}$  (100 to 5000 nm), formed in the presence of a surfactant from a mixture comprising of 40 to 98 percent by weight of monomers for the shell polymer (B), which has a Tg preferably above 50°C, and 2 to 60% percent by weight of hydrophilic monomers for the core, wherein the monomer mixture comprises monomers such as styrene and acid (anionic) monomers such as (meth)acrylic acid. The core and shell are polymerized in sequence and the core polymer acts as a seed for the shell polymer.

In page 5, lines 14-17, Hoshino et al. teach that latex particles are formed by drying the dispersion and the hydrophilic inner phase of the core-shell particles is taught to be alkali soluble in order to allow for the generating of pores.

Thus, the requirements for rejection under 35 U.S.C. 102(b) are met.

11. Claims 30-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Blankenship (EP 696602)

In col. 1, line 53 to col. 2, line 12 and col. 3, lines 25-36, Blankenship teaches a process for preparing an aqueous dispersion of hydrophilic core-hydrophobic shell polymers formed in the presence of a surfactant (in an emulsion), wherein the core comprises 5 to 100% of hydrophilic acid monomers, such as (meth)acrylic acid, the balance of the core being nonionic monomers such as styrene, and wherein the shell comprises 1 to 10% of acid functional monomers, the balance of the shell being nonionic monomers such as styrene. The core and shell are polymerized in sequence and the core polymer may be prepared in the presence of a seed latex.

In col. 7, lines 29-43, Blankenship teaches that dry particles, with total particle sizes from about 70 nm to 4500 nm, are formed by drying the dispersion, and the hydrophilic inner phase of the core-shell particles is taught to be alkali soluble in order to allow for the generating of pores.

Thus, the requirements for rejection under 35 U.S.C. 102(b) are met.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (703) 306-5701. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for

Art Unit: 1713

the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink, appearing to be 'KCE', with a long, sweeping horizontal line extending to the right.

KCE  
March 24, 2003